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(71) Applicant (for DE only): **PHILIPS INTELLECTUAL  
PROPERTY & STANDARDS GMBH [DE/DE]**; Stein-  
damm 94, 20099 Hamburg (DE).

(71) Applicant (for AE, AG, AL, AM, AT, AU, AZ, BA, BB, BE,  
BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CY, CZ,  
DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM,  
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UZ, VC, VN, YU, ZA, ZM, ZW only): **KONINKLIJKE  
PHILIPS ELECTRONICS N. V. [NL/NL]**; Groenewoud-  
seweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and  
(75) Inventor/Applicant (for US only): **BRETSCHNEIDER,  
Jens [DE/DE]**; c/o Philips Intellectual Property & Stan-  
dards GmbH, Weissshausstr. 2, 52066 Aachen (DE).

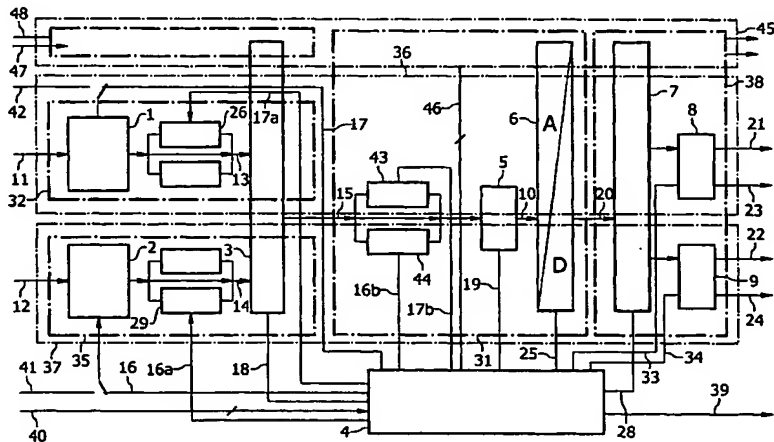
(74) Agent: **MEYER, Michael**; Philips Intellectual Property &  
Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).

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(54) Title: **METHOD AND ARRANGEMENT FOR MULTICHANNEL ANALOG/DIGITAL CONVERSION**



(57) Abstract: The invention relates to a method of multichannel analog/digital (A/D) conversion, in which in a first and second channel provision area a first and second analog signal awaiting conversion is sampled by a respective first and second S/H (Sample & Hold) element and the respectively stored sample value thereof is applied as a channel sample to a first and second input of an analog multiplexer for selection, wherein the processing of the respective channel sample then takes place in a processing cycle of all channels by said channel sample

being selected in the analog multiplexer by a digital selection control signal for the analog/digital conversion and provided as analog selection signal at an output of the analog multiplexer and after the respective channel provision area being converted in an analog/digital converter. The object according to the invention, that of providing a method in which the analog/digital conversion of a number of analog signals takes place on one chip such that costs are saved during chip production and energy is saved during use of the chip by the analog/digital conversion of the individual analog signals being adapted to the technical characteristics of their subsequent signal processing, is achieved in that an expiry of the multichannel analog/digital conversion calculated in channel controller or defined by hardware by an expiry controller is valid for the respective entire channel including the detection of the channel sample in a first or second channel provision area. The object according to the invention is also achieved by another embodiment in that an order of processing the channel sample detected in the respective first or second channel provision area, which channel sample is provided by the analog selection signal in an A/D conversion provision area and then converted by the A/D converter, is calculated and determined individually for each channel sample by a channel controller.

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